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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/091,954	03/05/2002	Hiroyuki Okuyama	112857-318	3912
29175	7590	10/22/2003	EXAMINER	
BELL, BOYD & LLOYD, LLC			TRAN, TAN N	
P. O. BOX 1135			ART UNIT	
CHICAGO, IL 60690-1135			PAPER NUMBER	
			2826	

DATE MAILED: 10/22/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/091,954

Applicant(s)

OKUYAMA ET AL.

Examiner

TAN N TRAN

Art Unit

2826

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on amendment filed on 08/04/03.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-4 and 6-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,6-10 is/are rejected.
- 7) ☒ Claim(s) 3 and 4 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### **Specification**

1. The title of the invention is still not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

### **Information Disclosure Statement**

2. If applicant is aware of any relevant prior art, he/she requested to cite it on form PTO-1449 in accordance with the guidelines set forth in M.P.E.P. 609.

### **Claim Objections**

3. Claim 6 is objected to because of the following informalities:  
Claim 6 should be canceled because it is depended on claim 5.  
Appropriate correction is required.

### **Claim Rejections - 35 USC § 102**

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

Claims 1,2,7,10 are rejected under 35 U.S.C. 102(a) as being anticipated by Hata et al. (6,320,209).

With regard to claims 1,7,10, Hata et al. discloses a semiconductor light emitting device is a semiconductor laser comprising: a base body 101; a selection mask (110,104) formed on the base body 101, the selection mask (110,104) defining a stripe-shaped opening; a GaN compound semiconductor layer 105 serves as wurtzite type compound semiconductor layer formed by selective growth from the opening such as to have a ridge line substantially parallel to long-sides of the opening formed at the intersection of two crystal planes comprising (1-101) plane; and a first conductive type (n-type) cladding layer 106, an active layer 107, and a second conductive type (p-type) cladding layer 108 formed on the semiconductor layer 105 wherein the second conductive type cladding layer 108 is formed the planes located on each side of the ridge line. (Note lines 25-31, column 5, and lines 66,67, column 6, fig. 1 of Hata et al.).

With regard to claim 2, Hata et al. discloses an electrode 111 is formed on only a region of the second conductive type cladding layer 108. (Note fig. 1 of Hata et al.).

### ***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 8,9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hata et al. (6,320,209).

With regard to claims 8,9, Hata et al. discloses a semiconductor light emitting device is a semiconductor laser comprising: a base body 101; a selection mask (110,104) formed on the base body 101, the selection mask (110,104) defining a stripe-shaped opening; a GaN compound semiconductor layer 105 serves as wurtzite type compound semiconductor layer formed by selective growth from the opening such as to have a ridge line substantially parallel to long-sides of the opening formed at the intersection of two crystal planes comprising (1-101) plane; and a first conductive type (n-type) cladding layer 106, an active layer 107, and a second conductive type (p-type) cladding layer 108 formed on the semiconductor layer 105 wherein the second conductive type cladding layer 108 is formed the planes located on each side of the ridge line. (Note lines 25-31, column 5, and lines 66,67, column 6, fig. 1 of Hata et al.).

Hata et al. does not disclose the selection mask defining a stripe-shaped opening extending with a longitudinal direction taken as a direction tilted from one of a (1-100) direction and a (11-20) direction by an angle ranging from about  $0.2^{\circ}$  to about  $20^{\circ}$ .

However, it would have been obvious to one of ordinary skill in the art to form the selection mask defining a stripe-shaped opening extending with a longitudinal direction taken as a direction tilted from one of a (1-100) direction and a (11-20) direction by an angle ranging from about  $0.2^{\circ}$  to about  $20^{\circ}$  so that the semiconductor layer 112 of Hata et al. can be easily grown.

***Allowable Subject Matter***

6. Claims 3,4 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 3,4 are allowable over the prior art of record, because none of these references disclose or can be combined to yield the claimed invention such as an electrode is formed in a region of the second conductive type cladding layer excluding a portion near the ridge line as recited in claim 3, an electrode is formed only in a region of the second conductive type cladding layer that is located on the pair of crystal planes and which has regular crystal steps as recited in claim 4.

**Conclusion**

7. Any inquiry concerning this communication or earlier communication from the examiner should be directed to Tan Tran whose telephone number is (703) 305-3362. The examiner can normally be reached on M-F 8:30AM-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nathan Flynn can be reached on (703) 308-6601. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7722 for regular communications and (703) 308-7724 for after final communications.

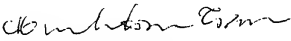
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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

TT

Sep 2003

  
**Minhloan Tran**  
**Primary Examiner**  
**Art Unit 2826**